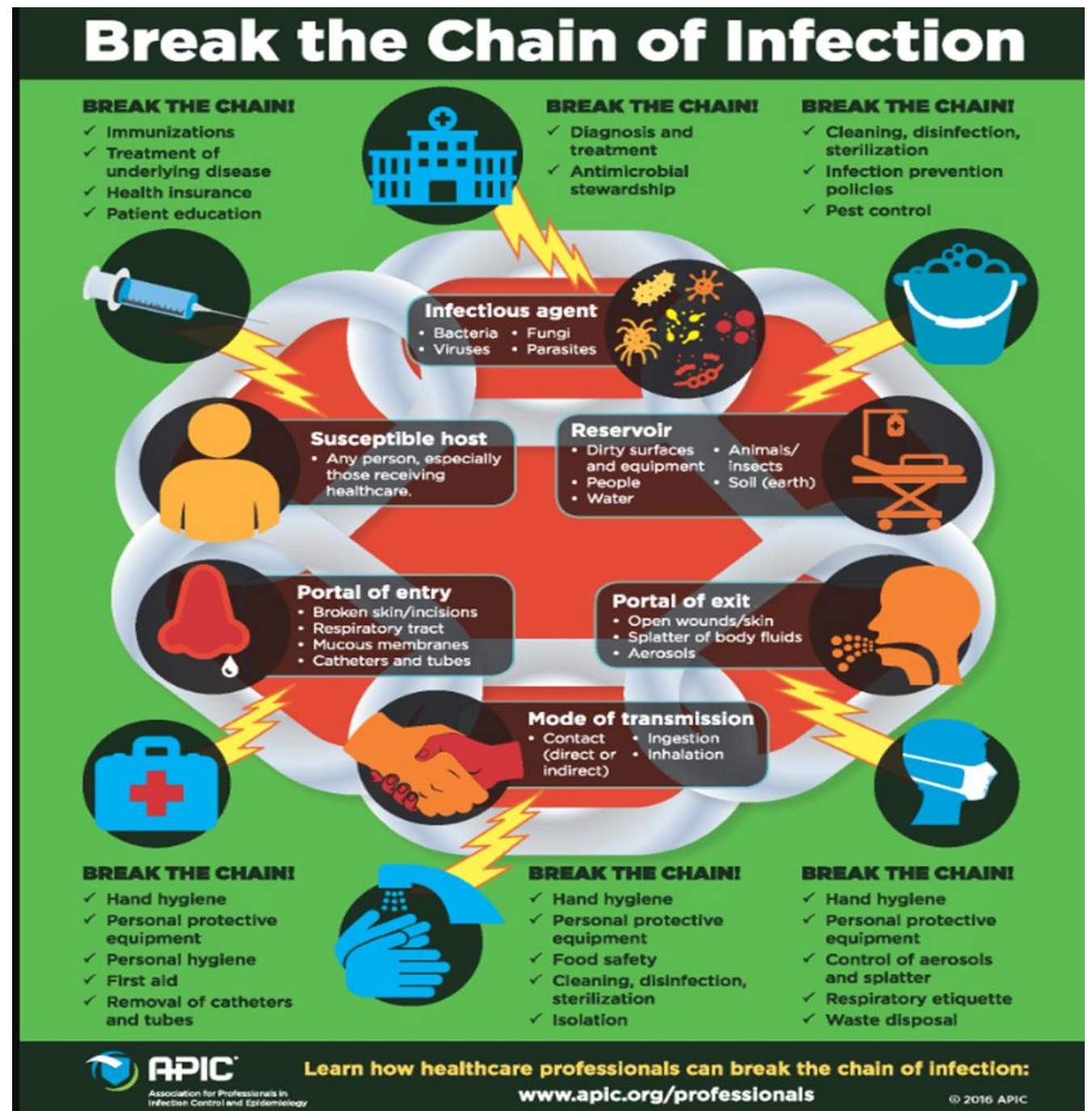


Containment of Targeted MDROs

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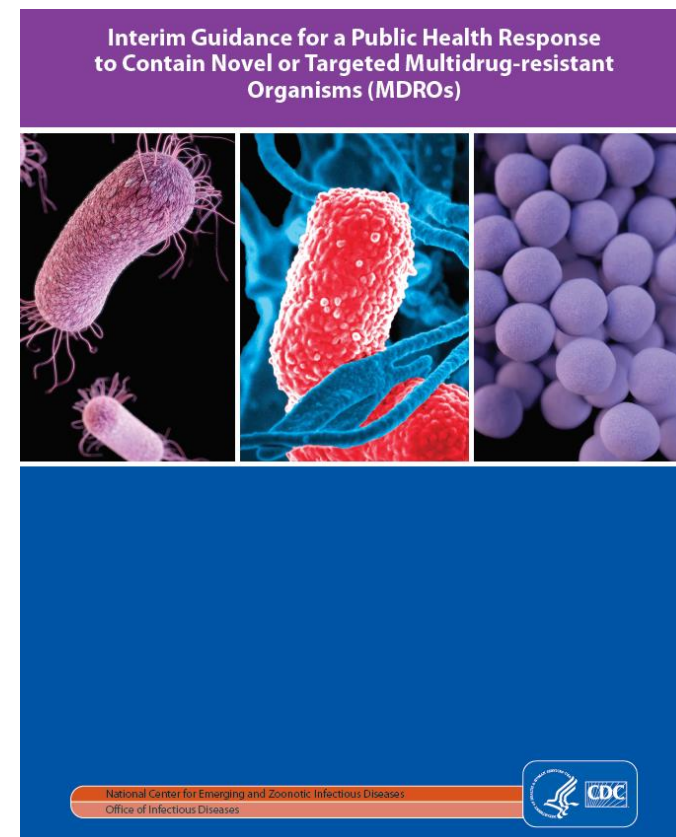


2023 Update: Containment of Targeted MDROs

COMING
SOON

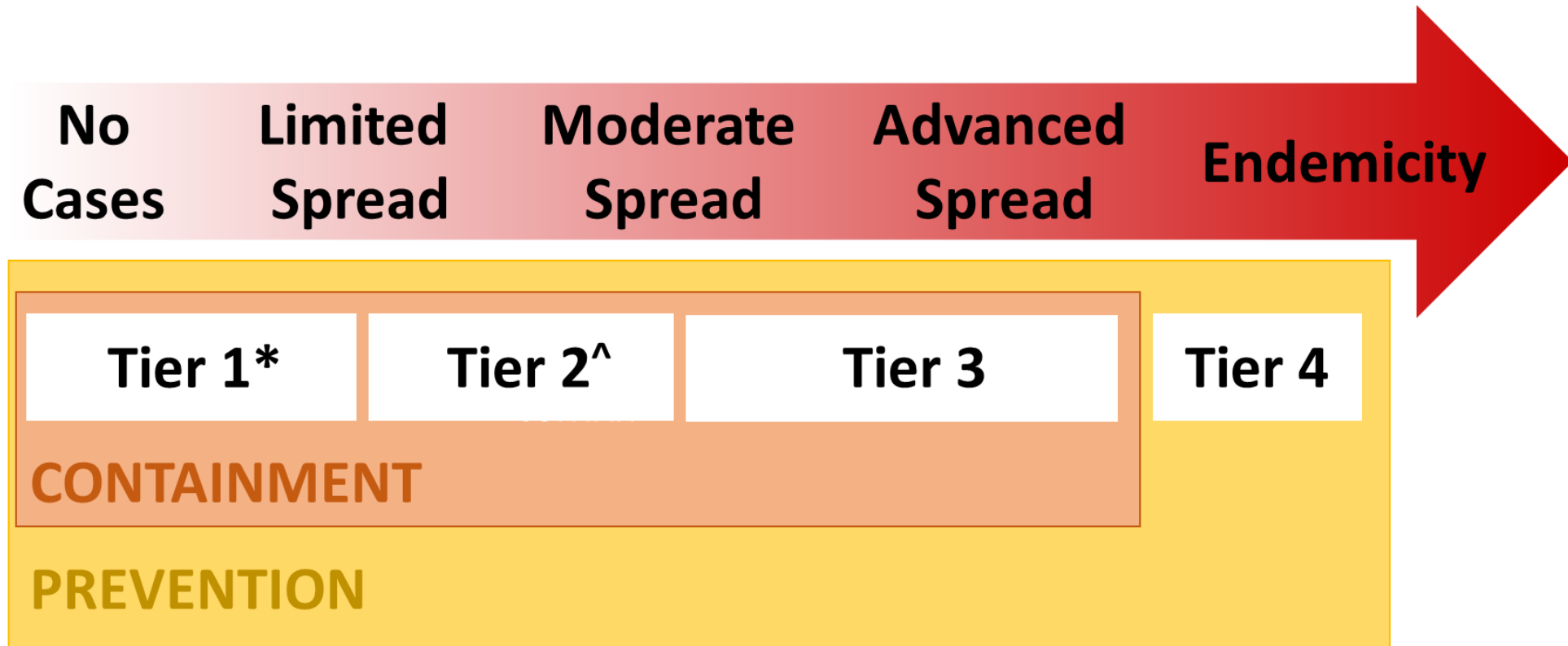
- Response to a **single case** of targeted resistance
- Goal to slow the spread of resistance
- 4-tiered approach based on organism/mechanism and local epidemiology

Tier	Description	Michigan Examples
1	Novel Resistance and/or resistance mechanisms never or rarely identified in the U.S.	Novel organism VRSA
2	Found in healthcare settings but not found regularly; No current treatment options exist and potential to spread more widely.	Any CPO with NDM, OXA-48, VIM, IMP CRPA or CRAB with KPC <i>Candida auris</i> Pan-Nonsusceptible (I or R to all drugs tested) organisms
3	MDROs targeted by region, but not considered endemic.	CP-CRE with KPC or CRAB OXA-23 (Regions 7/8)
4	Endemic in a region	CP-CRE with KPC or CRAB OXA-23 (Other Regions)



[CDC Containment Strategy Guidelines for Targeted MDROs](#)

Tier Definitions, Epidemic Stages, Response and Prevention



Organisms or resistance mechanisms that have

*Never (or very rarely) been identified **in the United States** and for which experience is extremely limited are Tier 1

^ Never (or very rarely) been identified **in a public health jurisdiction but are more common in other parts of the U.S.** are Tier 2.

2023 Update: Containment Response Elements

		Tier 1	Tier 2	Tier 3
Healthcare investigation	Review the patient's healthcare exposures prior to and after the positive culture	30 days	30 days	Current, sometimes prior admission
Contact investigation	Screen healthcare roommates			
	Screen additional healthcare contacts			
	Screen household contacts			
	Screen healthcare personnel			
If transmission identified	Repeat PPS at regular intervals if cases identified*			
	Evaluate potential for spread to linked facilities			
Clinical surveillance	Prospective laboratory surveillance			
	Retrospective laboratory			
Environmental cx	Environmental Sampling			
Ensure adherence to IPC	Infection control assessment w/ observations of practice			

	ALWAYS
	USUALLY
	SOMETIMES
	RARELY

*Periodic (e.g., every two weeks) response-driven PPS should be conducted until transmission is controlled, defined as two consecutive PPS with no new cases identified or, in facilities with high colonization pressure, substantially decreased transmission. If high levels of transmission persist across multiple point prevalence surveys in long term care settings, consider increasing the interval between surveys or temporarily pausing them while reassessing infection control and implementing interventions.

VRSA Investigation Steps

- 1) Develop a plan for VRSA colonized or infected patients
- 2) Identify and categorize contacts
- 3) Specimen collection and screening
- 4) Evaluate Efficacy of Infection Control Precautions

https://www.cdc.gov/hai/pdfs/VRSA-Investigation-Guide-05_12_2015.pdf



Investigation and Control of Vancomycin- Resistant *Staphylococcus aureus* (VRSA): 2015 Update

Division of Healthcare Quality Promotion
Centers for Disease Control and Prevention
Updated: April 2015



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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New ICAR Tool

What is an ICAR?

- Infection Control Assessment and Response (ICAR)
- Systematic assessment of a facility's IPC practices
 - Identifies gaps in practices
 - Guides quality improvement
- ICAR tool for general IPC across settings
 - Acute care, long-term care, and outpatient settings
 - Series of modules that can be selected for use by ICAR facilitator
 - Modules are not setting specific

Containment Response

Case Study: CP-CRE

BOL Lab Notification:
NDM+ *Klebsiella pneumoniae*
L hip wound
SNF A resident

SNF A Screened 2 of
23 recommended
contacts = negative
Declined ICAR



Case Investigation Found:

- Resided on COVID-19 PUI unit since Oct 2020
- Received in room wound care, PT/OT
- SNF A practicing extended use/reuse of PPE and experiencing staffing shortages

Provided IP Recommendations:

- Enhanced Barrier Precautions
- Transition away from extended use/reuse of PPE
- Ensure high adherence to IPC practices
- Conduct CP-CRE colonization screening for healthcare contacts on PUI unit
- Participate in an ICAR

BOL Lab Notification:
NDM+ *Klebsiella pneumoniae*

L hip wound
SNF A resident

SNF A Screened
2/23 recommended
contacts = negative
Declined ICAR

SNF A Notification:
2nd CRE *K. pneumoniae*
urine
BOL confirmed as
NDM+

SNF A Screened
41/62 contacts
= 1 new NDM+ on
PUI unit

Onsite ICAR

Feb 2021

Mar 2021

Apr 2021

May 2021

June 2021

Case Investigation Found:

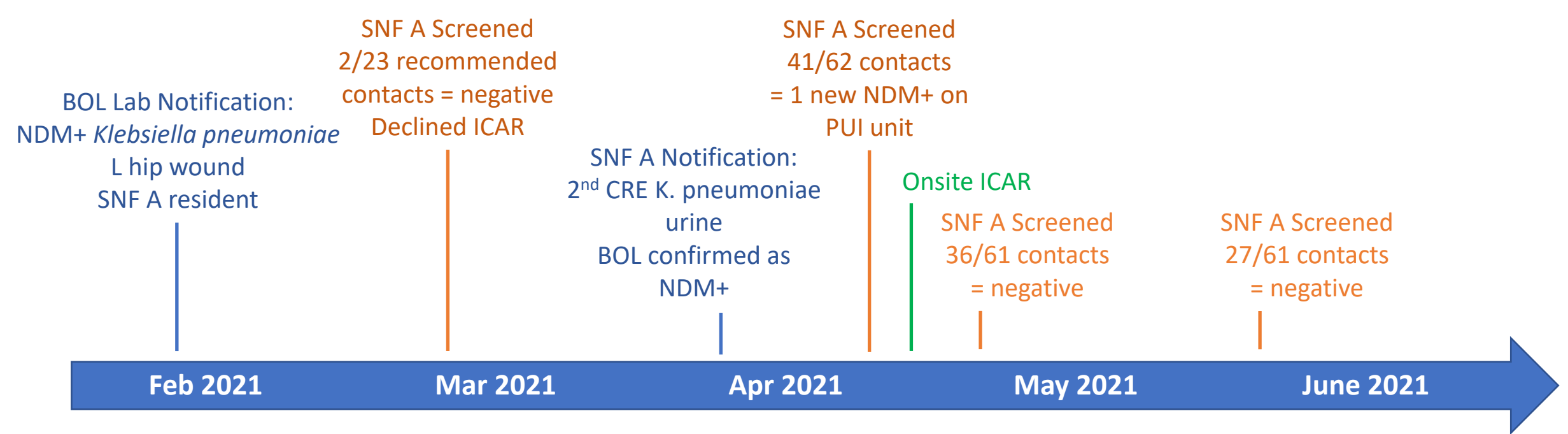
- Resided on LTC unit since Aug 2018, last hospitalization May 2019
- Colostomy that sometimes leaks, dementia
- SNF A still practicing extended use/reuse of PPE and experiencing staffing shortages

Provided IP Recommendations:

- Enhanced Barrier Precautions
- Transition away from extended use/reuse of PPE
- Ensure high adherence to IPC practices
- Conduct CP-CRE colonization screening for healthcare contacts on all units
- Participate in an ICAR

Onsite ICAR:

- Enhanced Barrier Precautions not fully implemented
- Still practicing extended/reuse PPE
- PPE supplies not stored near point-of-use
- ABHS not available in resident rooms, missed opportunities for hand hygiene observed
- Observed gaps in cleaning & disinfection practices



Enhanced Surveillance:

- No additional cases detected from clinical cultures at SNF A
- Hospital A (shares patients)
 - Did not detect any additional cases
 - Provided IP recommendations

Case Study Recap

Containment Response Activities

Element	Activity	Tier 2 Recommendation	Case Study #1
Healthcare investigation	Review the patient's healthcare exposures prior to and after the positive culture	30 days	Cases #1, 2, 3
Contact investigation	Screen healthcare roommates	✓	LTC
	Screen additional healthcare contacts	✓	PUI & LTC
	Screen household contacts	X	X
	Screen healthcare personnel	X	X
If transmission identified	Repeat PPS at regular intervals if cases identified*	✓	4 PPS
	Evaluate potential for spread to linked facilities	✓	Hospital A
Clinical surveillance	Prospective laboratory surveillance	✓	Monitored
	Retrospective laboratory	✓	Reviewed
Environmental cx	Environmental Sampling	X	X
Ensure adherence to IPC	Infection control assessment w/ observations of practice	✓	Onsite ICAR



Questions?

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